

Application No. 10/022,864
Response to Office Action

Customer No. 01933

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

RE: ALLOWABLE SUBJECT MATTER

The Examiner's indication of the allowability of the subject matter of claims 3-5, 15-18, 20 and 21 is respectfully acknowledged. These claims, however, have not been rewritten in independent form at this time since, as set forth in detail hereinbelow, it is respectfully submitted that their respective parent claims, as amended, also recite allowable subject matter.

RE: THE CLAIMS

Claim 1 has been amended to clarify the features of the present invention whereby the predetermined pattern includes local maximum areas with local maximum luminance values and local minimum areas with local minimum luminance value, whereby a total number of the local maximum luminance values and the local minimum luminance values is at least three, and whereby the local maximum areas are arranged alternately with the local minimum areas to encode the predetermined pattern based on the arrangement of the local maximum areas and the local minimum areas and the luminance values corresponding to the respective local maximum areas and the respective local minimum areas. See

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the disclosure in the specification at, for example, page 14, line 7 to page 15, line 19, and at for example page 31, line 26 to page 32, line 1.

In addition, claims 2 and 8 have been amended in a manner similar to claim 1, based on the disclosure in the specification at page 24, line 21 to page 25, line 18, at page 28, line 10 to page 30, line 21.

Still further, method claims 10-12 have been amended to correspond respectively to amended claims 1, 2 and 8.

And claims 1-5, 7-16 and 19-21 have also been amended to make some minor grammatical improvements and to correct some minor antecedent basis problems so as to put the claims in better form for issuance in a U.S. patent.

No new matter has been added, and it is respectfully requested that the amendments to claims 1-5, 7-16 and 19-21 be approved and entered.

RE: THE PRIOR ART REJECTION

Claims 1, 2, 7-13 and 19 were rejected under 35 USC 102 as being anticipated by USP 5,615,003 ("Hermary et al"), and claims 6 and 14 were rejected under 35 USC 103 as being obvious in view of Hermany et al and "Surface Profile Measurement Using Color Fringe Projection" ("Wust et al"). These rejections,

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however, are respectfully traversed with respect to the claims as amended hereinabove.

According to the present invention as recited in amended independent claims 1 and 8 (and corresponding method claims 10 and 12), the predetermined pattern (spatial encoding pattern) includes local maximum areas with local maximum luminance values and local minimum areas with local minimum luminance value. As recited in the amended claims, a total number of the local maximum luminance values and the local minimum luminance values is at least three. And as recited in the amended claims, the local maximum areas are arranged alternately with the local minimum areas to encode the predetermined pattern based on the arrangement of the local maximum areas and the local minimum areas and the luminance values corresponding to the respective local maximum areas and the respective local minimum areas.

According to the present invention as recited in amended independent claim 2 (and corresponding method claim 11), moreover, the predetermined pattern includes patterns of a plurality of color components, and the pattern of each of the plurality of color components includes local maximum areas with local maximum luminance values and local minimum areas with local minimum luminance values. As recited in the amended claims, in the pattern of each of the plurality of color components a total number of the local maximum luminance values and the local

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minimum luminance values is at least three. And as recited in the amended claims, the local maximum areas are arranged alternately with the local minimum areas to encode the pattern of each of the plurality of color components based on the arrangement of the local maximum areas and the local minimum areas and the luminance values corresponding to the respective local maximum areas and the respective local minimum areas.

That is, according to the claimed present invention, a total number of the local maximum luminance values and the local minimum luminance values is at least three. Thus, according to the claimed present invention there are at least three gradation levels (see the multiple gradation levels in Fig. 1, for example).

By contrast, it is respectfully submitted that Hermary et al merely discloses forming a binary pattern via a mask with alternating transparent and opaque bands. Thus, in Hermary et al, each band is simply either light or dark, and narrow or wide.

Therefore, it is respectfully submitted that Hermary et al clearly does not disclose, teach or suggest local maximum areas having local maximum values and local minimum areas having local minimum values such that a total number of the local maximum luminance values and the local minimum luminance values is at least three.

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It is respectfully submitted, moreover, that "Wust et al" also does not disclose, teach or suggest this feature of the present invention.


Accordingly, it is respectfully submitted that the present invention as recited in amended independent claims 1, 2, 8 and 10-12, and claims 3-7, 9 and 12-21 respectively depending therefrom, clearly patentably distinguishes over Hermary et al and Wust et al, under 35 USC 102 as well as under 35 USC 103.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,


Douglas Holtz
Reg. No. 33,902

Frishauf, Holtz, Goodman & Chick, P.C.
767 Third Avenue - 25th Floor
New York, New York 10017-2023
Tel. No. (212) 319-4900
Fax No. (212) 319-5101
DH:iv
encs.